

## I. CLAIMS

Please amend the claims as follows:

1. – 36. Cancelled

37. (Currently Amended) A method, comprising:

storing, via a computing device, in a directory:

collaborative information;

a plurality of common message data models, each of the common message data models for use in forming annotated messages comprising links and metadata extracted from the collaborative information; and

a plurality of common primitive message exchange sequences, each common primitive message exchange sequence comprising a combination of at least two common message data models, each common primitive message exchange sequence for use in an exchange of a sequence of annotated messages, the plurality of common primitive message exchange sequences comprising a first common primitive message exchange sequence comprising a first and a second common message data model;

initiating, via a computer system configured for on-demand business collaboration, the first common primitive message exchange sequence by forming and sending a first annotated message based on the first common message data model, the first annotated message comprising links and metadata extracted from the collaborative information stored in the directory; and

receiving, in response to the first annotated message, a second annotated message based on the second common message data model.

38. (Previously Presented) The method of claim 37, where the first common primitive message exchange sequence comprises a request for design common primitive message exchange sequence, and further comprising:

receiving a third annotated message based on a third common message data model, where the first common primitive message exchange sequence further comprises the third common message data model combined with the first and second common message data models;

where the first common message data model comprises a design request common message data model, and the first annotated message comprises a request for design input;

where the second common message data model comprises an acknowledgement common message data model, and the second annotated message comprises an acknowledgement of receipt of the first annotated message; and

where the third common message data model comprises a design acceptance common message data model, and the third annotated message comprises a notice that a recipient of the first annotated message has accepted the request for design input.

39. (Previously Presented) The method of claim 38, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to the recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.

40. (Previously Presented) The method of claim 39 where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

41. (Previously Presented) The method of claim 37, where the plurality of common primitive message exchange sequences further comprises a second common primitive message exchange sequence comprising a third and a fourth common message data model, further comprising:

storing, in the directory, a plurality of common construct message exchange sequences, each common construct message exchange sequence comprising a combination of at least two common primitive message exchange sequences, each common construct message exchange sequence for use in an exchange of sequences of common primitive message exchange sequences, the plurality of common construct message exchange sequences comprising a first common construct message exchange sequence comprising the first and the second common primitive message exchange sequences; and

completing the first common construct message exchange sequence by exchanging a third and a fourth annotated message, the third annotated message being based on the third common message data model, and the fourth annotated message being based on the fourth common message data model.

42. (Previously Presented) The method of claim 41, where:

the first common construct message exchange sequence comprises a request for design common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for design input; and

the second common primitive message exchange sequence comprises a submission of a design.

43. (Previously Presented) The method of claim 41, where:

the first common construct message exchange sequence comprises a request for update common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for update input; and

the second common primitive message exchange sequence comprises an update submission.

44. (Previously Presented) The method of claim 41, where:

the first common construct message exchange sequence comprises a request for information common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for information input; and

the second common primitive message exchange sequence comprises an information submission.

45. (Previously Presented) The method of claim 41, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.

46. (Previously Presented) The method of claim 45, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

47. (Previously Presented) The method of claim 37, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.

48. (Previously Presented) The method of claim 47, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

49. (Previously Presented) A computer program product comprising a computer readable storage medium including a computer readable program, where the computer readable program when executed on a computer causes the computer to:

store in a directory:

collaborative information;

a plurality of common message data models, each of the common message data models for use in forming annotated messages comprising links and metadata extracted from the collaborative information; and

a plurality of common primitive message exchange sequences, each common primitive message exchange sequence comprising a combination of at least two common message data models, each common primitive message exchange sequence for use in an exchange of a sequence of annotated messages, the plurality of common primitive message exchange sequences comprising a first common primitive message exchange sequence comprising a first and a second common message data model;

initiate the first common primitive message exchange sequence by forming and sending a first annotated message based on the first common message data model, the first annotated message comprising links and metadata extracted from the collaborative information stored in the directory; and

receive, in response to the first annotated message, a second annotated message based on the second common message data model.

50. (Previously Presented) The computer program product of claim 49, where the first common primitive message exchange sequence comprises a request for design common primitive message exchange sequence, and where the computer readable program when executed on the computer further causes the computer to:



receive a third annotated message based on a third common message data model, where the first common primitive message exchange sequence further comprises the third common message data model combined with the first and second common message data models;

where the first common message data model comprises a design request common message data model, and the first annotated message comprises a request for design input;

where the second common message data model comprises an acknowledgement common message data model, and the second annotated message comprises an acknowledgement of receipt of the first annotated message; and

where the third common message data model comprises a design acceptance common message data model, and the third annotated message comprises a notice that a recipient of the first annotated message has accepted the request for design input.

51. (Previously Presented) The computer program product of claim 50, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to the recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.

52. (Previously Presented) The computer program product of claim 51, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

53. (Previously Presented) The computer program product of claim 49, where the plurality of common primitive message exchange sequences further comprises a second common primitive message exchange sequence comprising a third and a fourth common message data model, and where the computer readable program when executed on the computer further causes the computer to:

store, in the directory, a plurality of common construct message exchange sequences, each common construct message exchange sequence comprising a combination of at least two common primitive message exchange sequences, each common construct message exchange sequence for use in an exchange of sequences of common primitive message exchange

sequences, the plurality of common construct message exchange sequences comprising a first common construct message exchange sequence comprising the first and the second common primitive message exchange sequences; and

complete the first common construct message exchange sequence by exchanging a third and a fourth annotated message, the third annotated message being based on the third common message data model, and the fourth annotated message being based on the fourth common message data model.

54. (Previously Presented) The computer program product of claim 53, where:

the first common construct message exchange sequence comprises a request for design common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for design input; and

the second common primitive message exchange sequence comprises a submission of a design.

55. (Previously Presented) The computer program product of claim 53, where:

the first common construct message exchange sequence comprises a request for update common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for update input; and

the second common primitive message exchange sequence comprises an update submission.

56. (Previously Presented) The computer program product of claim 53, where:

the first common construct message exchange sequence comprises a request for information common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for information input; and

the second common primitive message exchange sequence comprises an information submission.

57. (Previously Presented) The computer program product of claim 53, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the

second container including metadata and a plurality of links to files of a second type stored in the directory.

58. (Previously Presented) The computer program product of claim 57, where the first annotated message comprises:

- an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

- status information to enable tracking of a collaborative process.

59. (Previously Presented) The computer program product of claim 49, where the first common message data model comprises:

- a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the first annotated message;

- a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

- a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

- a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the

second container including metadata and a plurality of links to files of a second type stored in the directory.

60. (Previously Presented) The computer program product of claim 59, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

61. (Previously Presented) A system, comprising:

a memory; and

a processor programmed to:

store in a directory within the memory:

collaborative information;

a plurality of common message data models, each of the common message data models for use in forming annotated messages comprising links and metadata extracted from the collaborative information; and

a plurality of common primitive message exchange sequences, each common primitive message exchange sequence comprising a combination of at least two common message data models, each common primitive message

exchange sequence for use in an exchange of a sequence of annotated messages, the plurality of common primitive message exchange sequences comprising a first common primitive message exchange sequence comprising a first and a second common message data model;

initiate the first common primitive message exchange sequence by forming and sending a first annotated message based on the first common message data model, the first annotated message comprising links and metadata extracted from the collaborative information stored in the directory; and

receive, in response to the first annotated message, a second annotated message based on the second common message data model.

62. (Previously Presented) The system of claim 61, where the first common primitive message exchange sequence comprises a request for design common primitive message exchange sequence, and where the processor is further programmed to:

receive a third annotated message based on a third common message data model, where the first common primitive message exchange sequence further comprises the third common message data model combined with the first and second common message data models;

where the first common message data model comprises a design request common message data model, and the first annotated message comprises a request for design input;

where the second common message data model comprises an acknowledgement common message data model, and the second annotated message comprises an acknowledgement of receipt of the first annotated message; and

where the third common message data model comprises a design acceptance common message data model, and the third annotated message comprises a notice that a recipient of the first annotated message has accepted the request for design input.

63. (Previously Presented) The system of claim 62, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.



64. (Previously Presented) The system of claim 63, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

65. (Previously Presented) The system of claim 61, where the plurality of common primitive message exchange sequences further comprises a second common primitive message exchange sequence comprising a third and a fourth common message data model, and where the processor is further programmed to:

store, in the directory, a plurality of common construct message exchange sequences, each common construct message exchange sequence comprising a combination of at least two common primitive message exchange sequences, each common construct message exchange sequence for use in an exchange of sequences of common primitive message exchange sequences, the plurality of common construct message exchange sequences comprising a first common construct message exchange sequence comprising the first and the second common primitive message exchange sequences; and

complete the first common construct message exchange sequence by exchanging a third and a fourth annotated message, the third annotated message being based on the third common

message data model, and the fourth annotated message being based on the fourth common message data model.

66. (Previously Presented) The system of claim 65, where:

the first common construct message exchange sequence comprises a request for design construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for design input; and

the second common primitive message exchange sequence comprises a submission of a design.

67. (Previously Presented) The system of claim 65, where:

the first common construct message exchange sequence comprises a request for update common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for update input; and

the second common primitive message exchange sequence comprises an update submission.

68. (Previously Presented) The system of claim 65, where:

the first common construct message exchange sequence comprises a request for information common construct message exchange sequence;

the first common primitive message exchange sequence comprises a request for information input; and

the second common primitive message exchange sequence comprises an information submission.

69. (Previously Presented) The system of claim 65, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the annotated first message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.

70. (Previously Presented) The system of claim 69, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.

71. (Previously Presented) The system of claim 61, where the first common message data model comprises:

a transaction resource including a link to a sender of the first annotated message, and a link to a recipient of the first annotated message;

a task resource including a link to a task file stored in the directory, and including metadata regarding the task file;

a project resource including a link to a project file stored in the directory, and including metadata regarding the project file; and

a requirements resource including a link to first and second containers, the first container including metadata and a plurality of links to files of a first type stored in the directory, and the second container including metadata and a plurality of links to files of a second type stored in the directory.

72. (Previously Presented) The system of claim 71, where the first annotated message comprises:

an access control policy, the access control policy requiring proper identity and authorization for the recipient of the first annotated message to access the first annotated message; and

status information to enable tracking of a collaborative process.